Date: Fri, 8 Jan 93 04:30:05 PST
From: Packet-Radio Mailing List and Newsgroup <packet-radio@ucsd.edu>
Errors-To: Packet-Radio-Errors@UCSD.Edu
Reply-To: Packet-Radio@UCSD.Edu
Precedence: Bulk
Subject: Packet-Radio Digest V93 #8
To: packet-radio

Packet-Radio Digest   Fri, 8 Jan 93   Volume 93 : Issue   8

Today's Topics:

Send Replies or notes for publication to: <Packet-Radio@UCSD.Edu>
Send subscription requests to: <Packet-Radio-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Packet-Radio Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/packet-radio".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 7 Jan 1993 17:17:24 GMT
From: usc!elroy.jpl.nasa.gov!ncar!vexcel!aa0fm@network.UCSD.EDU
Subject: BBS info
To: packet-radio@ucsd.edu

I am finally using my packet station and would appreciate
information about local nodes and bbs availability in the
Denver/Boulder area. I realize that my ARRL repeater directory
is not going to do the trick. Thanks for either posting or
email.

AA0FM (zach, email: aa0fm@vexcel.com)

Date: 7 Jan 93 11:19:24 GMT
From: sdd.hp.com!nigel.msen.com!math.fu-berlin.de!news.netmbx.de!Germany.EU.net!
lif.de!LIFRA.LIF.DE!SYS_HJK@network.UCSD.EDU
Subject: Docu for ka9q?
To: packet-radio@ucsd.edu

Hello all,

I'm familiar with the WNOS-4A8 package, but its something different to
the original KA9Q.

All is ok for usage on radio. But I want to set up a slip line via modem
and just this part has been removed from WNOS. I got the latest net.386
from ucsd.edu, I hope it was the correct one.

But I could not find any documentation around there. Could someone
please give me a hint, where I can find the appropriate docu?

73, Hans.
--
Hans-Joachim Koch, Computer department of Lahmeyer International
Lyoner Strasse 22, POB 71 06 51, D-6000 Frankfurt (Main) 71, Germany
Phone: +49 69 6677-642, Fax: +49 69 6677-571, Tx: 413478 li d
EUnet: koch@lifra.lif.de, AMPRnet: dk9om@db0lj.ampr.org

Date: 7 Jan 93 11:44:51 GMT
From: news-mail-gateway@ucsd.edu
Subject: FEC
To: packet-radio@ucsd.edu

In a recent article Phil Karn stated that 'strong forward error correction'
was of advantage in [spread sprectrum] packet radio. As we speak all
COMMERCIAL packet radio (eg RDLAP, MOBITEX etc) uses some form of extensive
(and I take it that translates as 'strong') FEC.

The problem is that, although the bit speed of these systems is 8K - 9K6, the
perceived throughput is not that much greater than our boring old 1200/2400
baud 'straight' (non FEC) packet.

I should like to hear the justification for FEC spelled out clearly, and also
suggest that if no-one has done it yet, perhaps some research on the ACTUAL
throughput of the various flavours of packet be done.

Dirk
g1tlh@gb7tlh.#35.gbr.eu

dirkjan@cix.compulink.com.uk
and my inside leg measurement is 33"

PLEASE reply to the list, NOT to the From: address
because this mail is sent through a one-way gateway!

Date: 7 Jan 93 11:29:03 GMT
From: sun-barr!sh.wide!wnoc-tyo-news!glocom!tyo-noc-news!jh1ynw!morphegw!
jf1lzq@ames.arpa
Subject: high speed packet radio question
To: packet-radio@ucsd.edu

In article <1ifs0tINNfeo@morrow.stanford.edu>, mattc@leland.Stanford.EDU (Matthew
William Clarke) writes:
>
> What I am mainly trying to figure out is this: What type of setup will
> allow high speed operation >= 9600 baud?   What bands are used by high-speed
> packet radio? How many people (approx.) operate at these speeds? What
> are the limitations?

PRUG(Packet Radio User's Group) in Japan is developping 64kbps system.

The high speed KISS-TNC, which might work well up to a few Mbps, has been
developped by JE1WAZ and his wife (NOCALL).
The 64kbps modem for 1.2GHz FM transceiver has developped by JS1DCF & JK1FNL.

We are trying to use this system for long distance communication.
The success reports will be here soon. (^_^)

Yutaka Sakurai / JF1LZQ

Date: 7 Jan 93 13:31:46 GMT
From: usc!howland.reston.ans.net!zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!
emory!ncratl!ncrhub2!ciss!law7!jra@network.UCSD.EDU
Subject: high speed packet radio question
To: packet-radio@ucsd.edu

A
mattc@leland.Stanford.EDU (Matthew William Clarke) writes:

>I read the FAQ, but I don't understand the distinction between a TNC, a packet
>radio modem, and a radio used for packet radio. Is a TNC the same thing as

>a packet radio modem? (I've used phone line modems since 1981, so I pretty
>well understand what a modem is, but don't understand what a Terminal Node
>Controller does.)

What we call a "TNC" (terminal node controller) actually has two pieces inside: a PAD (packet assembler-disassembler) that takes the serial data from your computer or terminal and converts it to packets of data in ax.25 format. The output of the PAD is still at digital levels. The second part is the modem that converts the digital output of the PAD to analog tones to modulate a radio. (I'm referring to the outbound data stream here; received data is converted from analog to digital by the modem, and from ax.25 to serial data by the PAD).

The commercially available TNCs generally come with modems for 1200 baud radio operation, but those internal modems can be bypassed (or sometimes replaced) with modems for other modulation speeds or methods. The PAD will generate packets at various speeds, depending on the clock frequencies it's fed. Most TNC PADs will operate at speeds from 300 to at least 9600 baud, and with some modification will go higher (we operate 19.2kB radio channels with TNCs by doubling the crystal frequency in the TNC and using faster components; we bypass the internal modem).

For 1200 baud operation, just about any radio will work. At higher speeds, things become a bit more complex because a) the radios need to switch from transmit to receive very quickly, and b) the modulation is more complex and can't be routed into/out of the radio through the mic and speaker jacks.

>What I am mainly trying to figure out is this: What type of setup will
>allow high speed operation >= 9600 baud? What bands are used by high-speed
>packet radio? How many people (approx.) operate at these speeds? What
>are the limitations?

9600 baud isn't "plug and play" but it's not too difficult. You need a TNC, a 9600 baud modem (available from several of the TNC manufacturers, or you can build one yourself for ~$50 -- the most common design is the "G3RUH" which is compatible with the "K9NG" or "TAPR" designs), and a radio that you're willing to open up and solder on. It's legal to run 9600 baud on 2m and up (it may be legal on 6m also, I'm not sure) but of course you'll want to operate on the same band as other local 9600 baud users (if any -- >1200 baud operation is still very sparse in many
B
areas); I can't help you with that!

If you're considering <starting> a local high-speed packet network, let me suggest another alternative. Kantronics has a UHF radio designed for packet radio that runs at 19.2kB. We've built a network using these

radios and, though it still requires an experimenter's touch, we're very happy with it. The cost is very competitive with slower systems, and offers a better baud/buck ratio. If you're interested in this, let me know and I can send you via email an article I wrote about our experiences.

--
John R. Ackermann, Jr. Law Department, NCR Corporation, Dayton, Ohio
(513) 445-2966 John.Ackermann@daytonoh.ncr.com
Packet Radio: ag9v@n8acv.oh tcp/ip: ag9v@ag9v.ampr [44.70.12.232]

Date: Fri, 8 Jan 1993 09:44:49 GMT
From: usc!howland.reston.ans.net!zaphod.mps.ohio-state.edu!malgudi.oar.net!news.ysu.edu!do-not-reply-to-path@network.UCSD.EDU
Subject: high speed packet radio question
To: packet-radio@ucsd.edu

I am interested in getting involved in high speed packet and I have a number of questions. I would also appreciate any information about experiences with high speed packet. I don't have an amateur license but I plan to get one in the new year.

Can the Kantronics D4-10 data radio support speeds faster than 19200 baud (standard speed) through its built in TTL port and data slicer?

Is direct connection to the D4-10's TTL interface compatible with Kantronics 19200 baud modem card? (data scrambling???)
What is the current street price of the D4 radio?
Is there a quantity discount?

What kind of modem is the Grapes 56k baud radio modem and what are its requirements for use?

Has multiple frequency shift keying been employed on the amateur bands?
****
I know that the Kantronics 9600 baud modem card also supports 19200 baud, with both analog and TTL inputs and outputs. One could use that modem for 19200 receive on its analog inputs with a simple wideband FM receiver chip. You could then employ what ever transmit capability you could muster up (1200/2400/9600) for communication to your local tcp/ip server. The server would have a local 19.2k baud user port and a 9600 baud network port. 1200/2400 baud would have to gateway into the server. My question: is there anybody that has or is planing to write software that allows high speed/lowspeed packet and packet acknowledgments over different speed nets? This would seem to be an important capability which would allow high capacity use of the server computer (interactive telnet and FTP) without bringing the regular packet

network
to its knees. With the development of fast digital modulation schemes in excess of
 64k baud the amateur service could provide fast,reliable and cheap
communications services to individuals without ISDN or dialup slip lines.

Sincerely, Reid H. Savage
511 W. Doty St.
Madison,WI 53703
(608)-251-7804 (voice)
ae674@yfn.ysu.edu

Date: 6 Jan 93 21:48:53 GMT
From: news-mail-gateway@ucsd.edu
Subject: internet <===> 44.x.x.x adresses
To: packet-radio@ucsd.edu

Is it possible to connect to an internet (non 44.x.x.x) node from a
ampr node (44.x.x.x) automatically, as is done with normal ampr?

If not, is there a gateway?

--
Daniel Drucker   N2SXX   Coconut seashells whispering to me
daniel%mertwig@uunet.uu.net   "Forever, forever, my Coda..."
             begin 266]U(&AA=F4@;F\@;&EF92X: ` end

Date: Fri, 8 Jan 1993 06:19:23 GMT
From: news.acns.nwu.edu!nucsrl!ddsw1!gagme!gagme!tedk@network.UCSD.EDU
Subject: Northern Illinois - BIG HAMFEST - JAN 31 1992
To: packet-radio@ucsd.edu

Note: Please help to spread the word about this event.

>>>>   Northern Illinois - BIG HAMFEST   <<<<<

Wheaton Community Radio Amateurs (WCRA)

Sunday, Jan 31, 1992   Gates open at 8 a.m.

Odeum Expo Center, Villa Park, IL

VE Sessions, Flea Market, Commercial Tables,
Free Parking, Handicapped Accessible, Seminars.

Talk-in: 145.39- (WCRA Repeater)

Admission: At Door - $6.00, Adv. $5.00

Contact:
Wheaton Community Radio Amateurs
P.O. Box QSL
Wheaton, IL 60189

708/629-8006   or   708/629-8889

Some WCRA members who should have advance Tickets for sale are:
 Naperville/Lisie Area:
  Mark Spieglan, 708/224-4863
  Doug Totel, 708/224-2410

Ted G. Kekatos, N9IXE
tedk@gagme.chi.il.us
708.390.0200 (w)
312.889.7401 (h)

Date: 7 Jan 93 19:41:02 GMT
From: utcsri!torn!spool.mu.edu!umn.edu!noc.msc.net!ns!hughes!hughes@RUTGERS.EDU
Subject: PBBS under Windows.
To: packet-radio@ucsd.edu

I made this request last week and the silence was deafening.

PLEASE, anyone with information, pro or con, about running any and all
PBBS programs under Windows, please speak up. I have received one reply
asking the same question.

Given the state of PBBSs and many applications going up under Windows,
there must be some activity and interest in this subject.

Thanks in advance to all who reply.

jim

Date: Thu, 7 Jan 93 17:43:02 MST
From: swrinde!gatech!news.byu.edu!news@network.UCSD.EDU
Subject: Question on PK-88 and C-64
To: packet-radio@ucsd.edu

I've got a Commodore 64 with the AEA Com Pakratt cartridge, and I was
wondering if the Pakratt program will properly run the PK-88. (No, I'm not
expecting to get much RTTY operation out of it :) , but I really like the
Pakratt's packet features.)

Thanks --
--
Ed Haymore
ed_haymore@byu.edu

Date: 7 Jan 93 15:36:15 GMT
From: news-mail-gateway@ucsd.edu
Subject: Wormhole - What is it?
To: packet-radio@ucsd.edu

|>   I'd say, I seen one in action today on the new startrek series
|>   Deep Space 9. It gets you right into the Gamma quadrant in
|>   about 30 secs pretty good eh :-).

>Today??? I don't get to see DS9 until Thursday! (I must be caught in a time
>vortex.)

>Ron Kirkpatrick

well, you get to see it tonight -- Here on the Spaced Coast we don't get it
until Saturday AND it's on what is probably the last Monoaural CBS affiliate
in the US (WCPX TV 6). Of course Mono's too good for Space Rangers (gack!).

At least Babylon 5 will be on a stereo station...(WOFL TV 35)...

bill wb9ivr

Date: Fri, 8 Jan 1993 08:36:34 GMT
From: qualcom.qualcomm.com!servo.qualcomm.com!karn@network.UCSD.EDU

To: packet-radio@ucsd.edu

References <1993Jan6.093218.27598@qualcomm.com>, <1ihk85INNeh8@tamsun.tamu.edu>,
<1iimg8INNsdm@network.ucsd.edu>
Subject : Re: Who do repeater coordinators represent?

In article <1iimg8INNsdm@network.ucsd.edu> brian@ucsd.edu (Brian Kantor) writes:
>That's all well and good theory, Phil, but who is going to build it?

Theory in ham radio, perhaps. Practice elsewhere. Anybody with the
time and the tenacity who wants to can build it.

>BTW, when are you going to put your antennas up? You've been living
>there at least half a year and you don't have ANY of them installed yet.

When I get interested in ham radio again.

Phil

Date: 8 Jan 1993 01:47:52 GMT
From: ucsd.edu!brian@network.UCSD.EDU
To: packet-radio@ucsd.edu

References <1993Jan4.144520.19597@ultb.isc.rit.edu>,
<1993Jan6.093218.27598@qualcomm.com>, <1ihk85INNeh8@tamsun.tamu.edu>
Subject : Re: Who do repeater coordinators represent?

That's all well and good theory, Phil, but who is going to build it?

BTW, when are you going to put your antennas up? You've been living
there at least half a year and you don't have ANY of them installed yet.
     - Brian

Date: 7 Jan 1993 16:03:17 GMT
From: swrinde!cs.utexas.edu!tamsun.tamu.edu!cs.tamu.edu!kurt@network.UCSD.EDU
To: packet-radio@ucsd.edu

References <eNTRwB1w164w@ham.almanac.bc.ca>,
<1993Jan4.144520.19597@ultb.isc.rit.edu>, <1993Jan6.093218.27598@qualcomm.com>
Subject : Re: Who do repeater coordinators represent?

In article <1993Jan6.093218.27598@qualcomm.com>, karn@servo.qualcomm.com (Phil
Karn) writes:
|>

|> Deja vu warning...
|>
|> I happen to agree with this. Using repeaters to reduce collisions
|> *does* involve a significant opportunity cost. Unfortunately, the
|> alternative techniques to "do it right" are still not yet known in the
|> amateur service. These include:
|>

[List of high bell-and-whistle index stuff deleted]

Damn, Phil, we're still at the stage where folks are trying to get their
TNCs hooked up to their YeaHoo HTs!!! C'mon now!
[FTHI:8-}]
kf

--
Kurt Freiberger, wb5bbw kurt@cs.tamu.edu 409/847-8607 fax:409/847-8578
Dept. of Computer Science, Texas A&M University   DoD #264: BMW R80/7 pilot
"We preserve our freedom using three boxes: ballot, jury, and cartridge."
      *** Not an official document of Texas A&M University ***

End of Packet-Radio Digest V93 #8
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